

Monsanto

FROM (NAME & LOCATION) **John C. Hunter, III - Texas City**

PLAINTIFF'S EXHIBIT

MON-524

DATE **October 24, 1974**

SUBJECT **Acetic Acid II - Fireproofing Requirement**

REFERENCE

TO **D. L. Weber
St. Louis**

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It is the Texas City position that the reactor area in the new acetic acid plant is the only place which will require structural fireproofing. A deluge sprinkler system activated by heat or static fireproofing is acceptable for this service. We suggest that this decision be made, based upon the economic comparison of the two over the life of the project. The details of the analysis leading to this position follow.

Acetic Acid Flammability - Technically acetic acid is flammable in that it will burn. It is our experience, however, that this flammability is not self-sustaining; but rather, requires a constant flame source. In addition, acetic acid in contact with concrete generates carbon dioxide which prevents burning. This was demonstrated in a test in Texas City prior to the Acetic I plant startup.

Reactor Structure - Since one of the primary feeds to the reactor is methanol, this area should be structurally fireproofed.

Exchanger Structure - The exchanger structure contains only two small vessels which hold pure acetic acid. The other vessels contain either a 50/50 acetic acid/water solution or pure methyl iodide all of which is not flammable. Therefore, the resulting liquid mixture dumped to the pad in the event of structural collapse would not be flammable and actually have an extinguishing effect. For this reason, this structure need not be fireproofed.

Absorber Structure - Although the absorbers in this structure do contain essentially pure acetic acid, the possibility of fire in this area resulting in structural collapse is absolutely minimal. This coupled with the preceding flammability discussion makes the area an absolute minimum risk and need not be fireproofed.

Individual Columns - The self supported distillation columns need not be fireproofed for the same reasons as discussed with respect to the absorbers.

If you have any questions/comments, please let me know.

John
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